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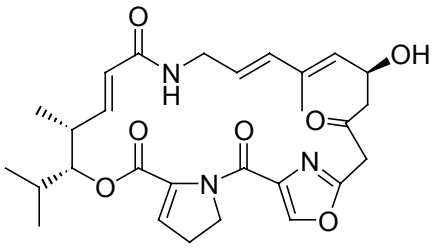
PRODUCT DATA SHEET

Ostreogrycin A

Code: **BIA-O1131**

Pack sizes: **5 mg, 25 mg**



Synonyms : **Mikamycin A, Pristinamycin IIA, Stephylomycin M1, Streptogramin A, Syncothrecin A, Synergistin A1, Virginiamycin M1, Vernamycin A, Antibiotic 14752-2, Antibiotic E129A, Antibiotic PA 114A, Antibiotic 1745Z3A, Antibiotic 547C, Factor M**

Specifications

CAS #	:	**21411-53-0**
Molecular Formula	:	**$C_{28}H_{35}N_3O_7$**
Molecular Weight	:	**525.6**
Source	:	***Streptomyces* sp. MST-AS4173**
Appearance	:	**White solid**
Purity	:	**> 99% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**DMSO and DMF, partially soluble in methanol and ethanol while poorly soluble in water**

Application Notes

Ostreogrycin A also commonly referred to as virginiamycin M1 or streptogramin A is the major component of the "virginamycin complex". In the 1950s this complex was independently discovered so many times the literature became highly confusing. Ostreogrycin A is a macrocyclic lactone antibiotic that acts synergistically with the structurally unrelated cyclic depsipeptides more commonly known as the virginiamycins B (ostreogrycin B or streptogramin B) and S to inhibit peptide elongation. This is achieved by blocking formation of a peptide bond between the growing peptide chain (peptidyl-tRNA) linked to the 50S ribosome and aminoacyl-tRNA. Ostreogrycin A has proven to be highly active against Gram positive bacteria, particularly methicillin-resistant *S. aureus*.

References

1. Preparation and properties of an antibiotic complex E129. Ball S. *Biochem. J.* **1958**, 68, 24P.
2. Virginiamycin: nomenclature. Crooy P. and De Neys R. *J. Antibiot.* **1972**, 25, 371.
3. Sites of interaction of streptogramin A and B antibiotics in the peptidyl transferase loop of 23 S rRNA and the synergism of their inhibitory mechanisms. Porse B.T. and Garrett R.A. *J. Mol. Biol.* **1999**, 286, 375.
4. Chemistry and Biology of the Streptogramin A Antibiotics. Ahmed F. and Donaldson, W.A. *Mini-Reviews in Org. Chemistry.* **2007**, 4, 159.

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